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मानक

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Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 12912 (1990): Bromadiolone RB [FAD 1: Pesticides and Pesticides Residue Analysis]



“ज्ञान से एक नये भारत का निर्माण”

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“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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Indian Standard

BROMADIOLONE RB — SPECIFICATION

भारतीय मानक

ब्रोमाडायोलोन आर बी — विशिष्ट

UDC 632'958 BRO

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BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

FOREWORD

This Indian Standard was adopted by the Bureau of Indian Standards on 25 January 1990, after the draft finalized by the Pesticides Sectional Committee had been approved by the Food and Agricultural Division Council.

Bromadiolone RB used as anticoagulant rodenticides are generally manufactured to contain 0.005 percent (m/m) of **bromadiolone**.

In the preparation of this standard, due consideration has been given to the provisions of the *Insecticides Act*, 1968 and the Rules framed thereunder. However, this standard is subject to the restrictions imposed under the Act and Rules, wherever applicable.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (revised)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

BROMADIOLONE RB — SPECIFICATION

1 SCOPE

1.1 This standard prescribes the requirement and the methods of test for bromadiolone RB.

2 REFERENCES

2.1 The following Indian Standards are necessary adjuncts to this standard:

IS No.	Title
1070 : 1977	Specification for water for general laboratory use (<i>second revision</i>)
12914: 1990	Bromadiolone, technical — Specification

3 REQUIREMENTS

3.1 Description

The material shall be in the form of loose-bait or wax impregnated blocks containing feed material, free from visible extraneous matter. The material shall be suitably pigmented for identification purpose.

3.2 Bromadiolone Content

When determined by the method prescribed in Annex A of IS 12914 : 1990 the observed bromadiolone content, **percent (*m/m*)**, of any of the samples shall not differ from the nominal value by more than the percent tolerances applied to the declared nominal value. The tolerances shall be ± 10 percent of the nominal value. The sample solution shall be prepared by the method prescribed in 6.3 and content calculated by using the formula given under 6.4.

4 PACKING

4.1 The material shall be packed in paper-poly pouches and heat sealed.

5 MARKING

5.1 The container shall bear legibly and indelibly the following information and any other information as is necessary under the *Insecticides Act*, 1968 and Rules:

- Name of the material;
- Indication of the source of manufacture;
- Date of manufacture;

d) Batch number;

e) Active ingredient content, percent (*m/m*);

f) Net mass of contents; and

g) The minimum cautionary notice as worded in *Insecticides Act*, 1968 and Rules.

6 TESTS

6.1 Tests shall be carried out by the methods referred to in 3.2.

6.2 Quality of Reagents

Unless specified otherwise, pure chemicals and distilled water (see IS 1070 : 1977) shall be employed in tests.

NOTE — 'Pure chemicals' shall mean chemicals that do not contain impurities which affect the results of analysis.

6.3 Weigh accurately about 20 g of sample and extract the bromadiolone in a Soxhlet apparatus using methanol as solvent for a period of 2 to 3 hours. Evaporate the solvent and adjust the volume to 60 to 70 ml and keep it in the refrigerator for overnight. Filter in cold condition through sintered glass G-5 crucible, and take filtrate solution in a 100-ml volumetric flask and add 8 ml of internal standard (5 mg/ml di-n-butyl phthalate in methanol) solution and make up the volume with methanol. This will give a solution containing 10 µg/ml of bromadiolone and 400 µg/ml of internal standard approximately. Inject 5 µl of the solution to the high performance liquid chromatography unit (HPLC) and standard solution as in case of bromadiolone technical.

6.4 Calculation

Bromadiolone content, percent by mass
$$\frac{A_s}{A_{st}} \times \frac{A_{ist}}{A_{is}} \times \frac{M_{st}}{M_s} \times p \times f$$

where

A_s = peak area of bromadiolone in sample solution; .

A_{st} = peak area of bromadiolone in standard solution;

A_{ist} = peak area of internal standard in standard solution;

A_{is} = peak area of internal standard in sample solution;

M_{st} = masr, in mg, of the bromadiolone standard;

M_s = mass, in mg, of **the** sample taken **for** the test;

p = percent purity of bromadiolone standard; and

$$f = \frac{1}{100} \times \frac{0.5}{50} \times \frac{100}{1} = \text{and } 0.01$$

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BUREAU OF INDIAN STANDARDS

Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110002
Telephones : 331 01 31,331 13 75

Telegrams : Manaksanstha
(Common to all Offices)

Regional Offices:

Central : Manak Bhavan, 9 Bahadur Shah Zafar Marg NEW DELHI 110002	{ 331 01 31 331 13 75
Eastern : 1/14 C.I.T. Scheme VII M, V.I.P. Road, Maniktola CALCUTTA 700054	37 86 62
Northern : SCO 445-446, Sector 35-C, CHANDIGARH 160036	2 1843
Southern : C.I.T. Campus, IV Cross Road, MADRAS 600113	41 29 16
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**AMENDMENT NO. 1 JANUARY 2013
TO
IS 12912 : 1990 BROMADIOLONE RB —
SPECIFICATION**

(*Page 1, clause 4.1*) — Substitute the following for the existing:

‘**4.1** The material shall be packed in laminated glassine paper/LDPE pouch of 100 g capacity or alternatively the product may also be packed in BOPP pouch or laminated pouch made from 12-microns polyester coated with 38-microns LDPE. It shall be free from pinholes, fine eye patches, tears and blisters and any other visible defects. These pouches are heat sealed and shall be further packed in duplex skilnet cartons and in CFB boxes. The container shall also meet the general requirements given in IS 8190 (Part 3).’

(FAD 1)